

Response dated December 26, 2003
Reply to Office action of Oct. 3, 2003

Serial No. 09/440,213
Docket No. ST999044
Firm No. 0054.0010

REMARKS/ARGUMENTS

The Examiner rejected 1-9, 11-19, and 21-19 as obvious (35 U.S.C. §103) over Davidson (U.S. Patent No. 6,083,276). Applicant traverses the rejections for the following reasons.

Independent claims 1, 11, and 21 concern generating an interface to elements in a document, wherein the document defines a relationship of the elements and at least one attribute for each element. These claims require generating a class implementing methods for at least one element from information provided on elements in the document and a mapping indicating at least one element in the document to map to a class, wherein the at least one indicated element in the document for which the class is generated can be accessed and affected by the methods implemented in the class.

During the phone interview, the attorney for Applicants discussed that the cited Davidson nowhere teaches or suggests the claim requirement of creating methods for at least one element in the document from both information provided on the elements in the document and a mapping indicating at least one element. Further, Davidson nowhere teaches or suggests generating methods from the elements and the mapping as claimed such that the element can be accessed and affected by the methods generated for that element.

For instance, in the Response to Arguments of the Final Office Action, the Examiner cited col. 7, lines 61-67 of Davidson as teaching the claim requirement of generating the class of methods for one element in the document. (Final Office Action, pg. 6) Applicants traverse.

The cited col. 7 mentions that an element mapper is used to select an element processor for an element, and that the element mapper is an object that maps the element's name to a corresponding class. The element instantiates an object of the target class, such that attributes of the element in the document are mapped to properties in the component. (Col. 7, line 61 to col. 8, line 2) The information in the generated component, including the element properties, can then be accessed from the component using publicly accessible methods and properties. (Col. 24, lines 50-55). Thus, the cited Davidson discusses how the attributes of an element can be mapped to an instantiated object or component of a target class, where the information in the component including the mapped element attributes can be accessed using publicly accessible methods and properties.

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The cited Davidson nowhere teaches, suggests or mentions the claim requirements of generating methods from the information on the elements and a mapping, where such generated methods can be used to access and affect the elements in the document. Davidson nowhere teaches or suggests generating methods to access and affect the elements in the document as claimed. Instead, the cited Davidson instantiates a object that is separate from the document and that includes the attributes of the elements which may be accessed from the component using publicly accessible methods. This is different than generating methods that are used to access and affect the elements in the document as claimed.

Thus, the cited Davidson does not teach or suggest the requirements of the claims for at least two reasons. Davidson nowhere teaches or suggests that the generated methods used to access the elements be generated from the information on the elements in the document and a mapping. Moreover, Davidson nowhere teaches or suggests the claim requirement of using the generated methods to access and affect the elements in the document. Instead, Davidson discusses generating a component including the element attributes which can be accessed using publicly accessible methods that are expected.

A review of the additional cited sections of Davidson in the Final Office Action further illustrates the deficiencies of the cited Davidson in teaching and suggesting the requirements of independent claims 1, 11, and 21.

The Examiner cited col. 22, lines 30-36 of Davidson (Final Office Action, pgs. 2, 6). This cited col. 22 discusses mapping an element to a target class. However, nowhere does the cited col. 22 anywhere teach or suggest the claim requirements of generating methods from information on elements in the document and a mapping, where the generated methods can access and affect the element in the document for which the class and methods are generated.

The Examiner further cited col. 23, line 4 to col 24, line 10, and col. 24, line 50 to col. 25, line 27. (Final Office Action, pgs. 2, 6). The cited col. 23, line 40-55 discusses how an element processor 118 creates an instance of a target class 132 associated with an element tag. The element processor 118 then creates the component 212 that is an instance of the class 132. After the component 212 is instantiated, the element processor 118 maps attributes from the document to the component 212. (Col. 24, lines 28-35) As discussed, the cited Davidson discusses how to create a component having elements from the document and classes used with that component.

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However, nowhere does the cited Davidson anywhere teach or suggest the claim requirement of generating methods that can access and affect the element in the document. Instead, the cited Davidson discusses a class 132 created to use a component 212 including attributes of the element, where the component may be accessed using publicly accessible methods, not manipulating the elements in the document as claimed.

The cited col. 25 discusses a method that can be used to set a property value in the component 212. Again, this cited Davidson discusses methods to act on the component 212, which is separate from the file 202, i.e., claimed document, having the elements. See, FIG. 2 of Davidson. Nowhere does the cited Davidson anywhere teach or suggest the claim requirement of generating methods that can access and affect elements in the document.

In the Final Office Action, the Examiner further cited col. 24, lines 50-63 as teaching the claim requirement of generating a class implementing methods for at least one element in the document from information provided in the document and mapping an element to a class. (Final Office Action, pg. 3) The cited col. 24 discusses how an element processor 118 expects the target component 212 to provide a description of methods on the target component. The element processor 118 maps attributes of the element in the document to properties in the component 212. (Col. 24, lines 35-41)

Nowhere does the cited col. 24 anywhere teach or suggest the claim requirement of generating a class of methods for one element in the document that are used to access and affect the element in the document. Instead, the cited col. 24 discusses how a component is generated from the elements. The cited col. 24 provides methods for use on a component, not the elements in the document as claimed.

For all the above reasons, Applicant submits that claims 1, 11, and 21 are patentable over the cited art because the cited Davidson does not teach or suggest all the claim requirements.

Dependent claims 2-10, 12-20, and 22-30 are patentable over the cited art because they depend from claims 1, 11, and 21, which are patentable over the cited art for the reasons discussed above. Moreover, the below discussed dependent claims provide additional grounds of patentability over the cited art.

Claims 2, 12, and 22 depend from claims 1, 11, and 21 and further require that the mapping includes a class name for each indicated element. The Examiner cited col. 7, lines 61-

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67 of Davidson as teaching the additional requirements of these claims. (Final Office Action, pg. 3) Applicant traverses.

The cited col. 7 mentions that the element mapper maps an element name to a corresponding target class, from which the component is instantiated. Nowhere does the cited col. 7 teach or suggest a mapping that includes a class name for an element. Instead, the cited col. 7 discusses mapping an element name to a class, not providing a class name for an element as claimed.

Accordingly, claims 2, 12, and 22 provide additional grounds of patentability over the cited art.

Claims 4, 14, and 24 depend from claims 1, 11, and 21 and further require that the relationship of the elements in the document are arranged in a hierarchical relationship, and wherein the methods in the at least one class generated for the element allow a user to directly access and affect the element in the document. Applicant amended these claims to clarify that the class allows the user to access and affect the element in the document.

The Examiner cited col. 7, lines 6-47 as teaching the additional requirements of claims 4, 14, and 24. (Final Office Action, pgs. 3-4) Applicant traverses for the following reasons.

The cited col. 7 discusses how the ADF document is parsed into a parse tree having the elements and attributes. The parse tree is then transformed into components 212. Applicant submits that nowhere does the cited col. 7 teach or suggest generating methods to allow a user to directly access and affect the element in the document. Instead, Davidson generates a component 212 having information from the file defining the element that may be accessed.

Accordingly, claims 4, 14, and 24 provide additional grounds of patentability over the cited art.

Claims 5, 15, and 25 depend from claims 4, 14, and 24 and additionally require accessing the at least one element in the document indicated in the mapping using a hierarchical application program interface (API), wherein one class is generated for each accessed element. The Examiner cited col. 6, lines 27-37 of Davidson as teaching the additional requirements of these claims. (Final Office Action, pg. 4). Applicant traverses.

The cited col. 6 discusses an application framework that has a plurality of classes. Although the cited col. 6 mentions classes related to an element, nowhere does the cited col. 6

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anywhere teach or suggest accessing an element in the document using a hierarchical application program interface, where there is one class for each element. Instead, the cited col. 6 discusses classes in general.

Accordingly, claims 5, 15, and 25 provide additional grounds of patentability over the cited art.

Claim 6, 16, and 26 depend from claims 1, 11, and 21, respectively, and further require that the mapping indicates an interface to generate for the class, wherein the interface defines methods to access the element for which the class is generated. The Examiner cited the previously discussed cols. 6, 7, and 24 as teaching the above claim requirements. (Final Office Action, pg. 4) As discussed, the cited cols. 6, 7, and 24 nowhere teaches or suggests generating interfaces to access the element itself. Instead, the cited Davidson discusses methods to access a component 212 generated from a parse 204 tree that is generated from a file 202 defining the element. See, FIG. 2 of Davidson.

Accordingly, claims 6, 16, and 26 provide additional grounds of patentability over the cited art.

Claims 8-10, 17-20, and 28-30 are patentable over the cited art because they depend from claims 1, 11, and 21, which are patentable over the cited art for the reasons discussed above, and because their additional requirements in combination with the base and any intervening claims provide further distinction over the cited art. Moreover, the Examiner rejected claims 10, 20, and 30 as obvious in view of Davidson and another patent, Skinner (U.S. Patent No. 6,085,198). However, Skinner was applied for the additional requirements of claims 10, 20, and 30, not the requirements of the base claims 1, 11, and 21 which in combination with the dependent claims provide still further grounds of patentability over the cited art.

Conclusion

For all the above reasons including those discussed during the phone interview, Applicant submits that the pending claims 1-30 are patentable over the art of record. Applicant submits that no additional fee is needed. Nonetheless, should any additional fees be required, please charge Deposit Account No. 09-0460.

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The attorney of record invites the Examiner to contact him at (310) 553-7977 if the Examiner believes such contact would advance the prosecution of the case.

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